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(71) Applicant (for all designated States except US): ABB AB | SE/SE|; S-721 83 Västerås (SE).

(72) Inventors; and

(75) Inventors/Applicants (for US only): BIJLENGA, Bo [SF/SE]: Lilla Ringvägen 2. S-662 33 Ämål (SE). NOROOZIAN, Mojtaba [SE/SE]; Sportfiskargatan 6. S-723 49 Västerås (SE). THORVALDSSON, Björn [SE/SE]; Agnegatan 16. S-730 40 Kolbäck (SE).

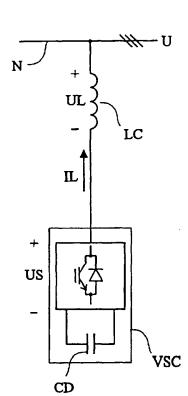
(74) Agent: ABB GROUP SERVICES CENTER AB; Legal & Compliance/Intellectual Property, S-721 78 Västerås (SE).

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(54) Title: EQUIPMENT AND METHOD FOR EXCHANGING POWER, IN SHUNT CONNECTION, WITH AN ELECTRIC POWER NETWORK. AND USE OF SUCH EQUIPMENT



(57) Abstract: Equipment for exchanging power, in shunt connection, with an electric power network (N) comprising a reactive impedance element (C, LC) and a voltage source converter (VSC) for mutual connection in series. The power network has a nominal voltage (Un) of a fundamental frequency (f) and a given phase position. The converter is intended for generating a fundamental-tone voltage (US) within a control range (A) which limits the amplitude of the fundamental-tone voltage. The control range limits the amplitude of the fundamental-tone voltage to a value which is lower than the nominal voltage of the power network and comprises generation of a reactive component (USr) of the fundamental-tone voltage with a phase position (Ø) that either coincides with the phase position for the voltage of the power network, or that deviates by 180° electrically form the phase position for the voltage of the power network.

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